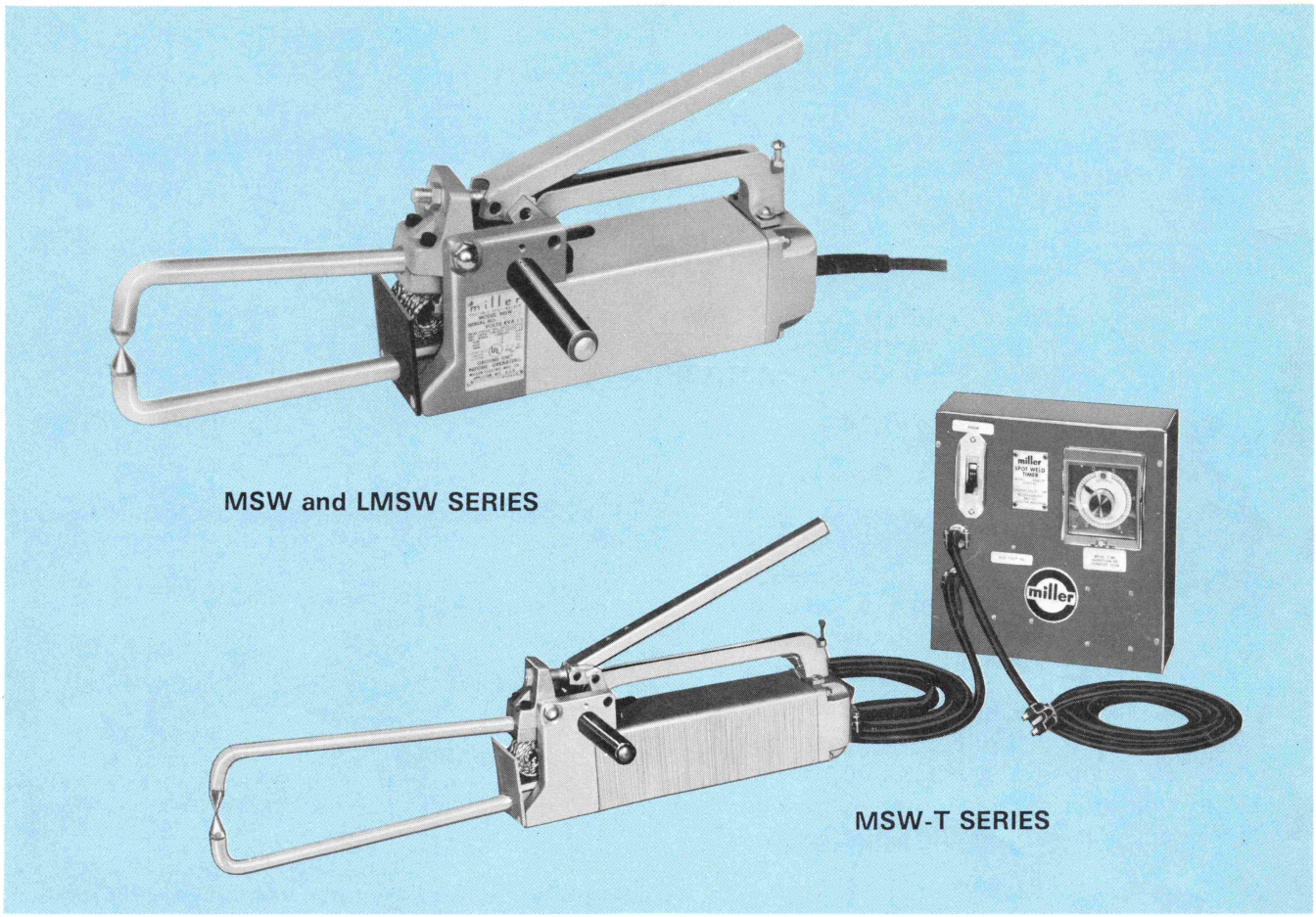
NWSA: 750
FORM: SW 478

INDEX NO.
SW/1.0

82

MSW and LMSW SERIES
PORTABLE SPOT WELDERS
1.5 and 2.5 KVA



Efficient, Lightweight, Resistance Spot Welders

The MILLER MSW-Series offers the finest in a light-weight and durable line of resistance spot welders. They provide the additional advantages of low-cost, fast and high quality welding.

The MSW-T Series is equipped with a spot weld timer control panel. Weld time can be adjusted to produce the right amount of current flow for each thickness of work material.

HERE'S THE WELDER FOR —

- Sheet Metal Shops
- Sign Manufacturers
- Production Lines
- Heating and Air Conditioning Contractors

SPECIFICATIONS

(Subject to change without notice)

MODELS	VOLTAGE	WORK CAPACITY COMBINED THICKNESS MILD STEEL	RATED OUTPUT (50% Duty Cycle)	WELDER DIMENSIONS			WELDER WEIGHTS	
				Height	Width	Length	Net	Ship
MSW-41*	110	1/8" (3.1 mm)	1.5 KVA	6 " (15.2 cm)	3¼" (8.2 cm)	13 " (33 cm)	22 lbs. (9.9 kilos)	26 lbs. (11.7 kilos)
MSW-41T	115	1/8" (3.1 mm)	1.5 KVA	6 " (15.2 cm)	3¼" (8.2 cm)	13 " (33 cm)	34 lbs. (15.4 kilos)	38 lbs. (17.2 kilos)
MSW-42*	220	1/8" (3.1 mm)	1.5 KVA	6 " (15.2 cm)	3¼" (8.2 cm)	13 " (33 cm)	22 lbs. (9.9 kilos)	26 lbs. (11.7 kilos)
MSW-42T	230	1/8" (3.1 mm)	1.5 KVA	6 " (15.2 cm)	3¼" (8.2 cm)	13 " (33 cm)	34 lbs. (15.4 kilos)	38 lbs. (17.2 kilos)
LMSW-52	230	3/16" (4.7 mm)	2.5 KVA	6 " (15.2 cm)	3¼" (8.2 cm)	16 " (40.6 cm)	30 lbs. (13.6 kilos)	33 lbs. (14.9 kilos)
LMSW-52T	230	3/16" (4.7 mm)	2.5 KVA	6 " (15.2 cm)	3¼" (8.2 cm)	16 " (40.6 cm)	42 lbs. (19 kilos)	45 lbs. (20.4 kilos)

* (UL) (Underwriters Laboratories) Listed. Meets (SA) (Canadian Standards Association) approval.

AMPERAGE/TONG SPECIFICATIONS

MODELS		RATED OUTPUT AMPERES*			OPEN CIRCUIT VOLTAGE	RECOMMENDED FUSE SIZE (AMPERES)	TONG GAP
		6" TONGS (15.2 cm)	12" TONGS (30.4 cm)	18" TONGS (45.7 cm)			
MSW-41	MSW-41T	5500	4500	3600	1.6	30	3¼" (8.2 cm)
MSW-42	MSW-42T	5500	4500	3600	1.6	15	3¼" (8.2 cm)
LMSW-52	LMSW-52T	6750	5800	4850	2.5	30	3¼" (8.2 cm)

*CALIBRATED WITH STANDARD TYPE TONGS

MODEL	STOCK NO.	MODEL	STOCK NO.	MODEL	STOCK NO.
MSW-41	900 371	LMSW-52	900 377	MSW-42T	901 351
MSW-42	900 374	MSW-41T	901 345	LMSW-52T	901 357

FEATURES

Lever action draws tongs together, locks them firmly on material and provides positive, accurate fit-up until the work is welded. Lifting the lever releases pressure and opens tongs. Adjustment for various thickness of materials can be quickly and easily made.

"Natural position" handle threads into either side of the welder, enables operator to maneuver it easily right or left-handed.

Models MSW-41, MSW-41T, MSW-42 and MSW-42T

Weld mild and stainless steel up to 1/8" (3.1 mm) combined thickness or two pieces of 20 gauge (1.8 mm) galvanized. Not recommended for aluminum.

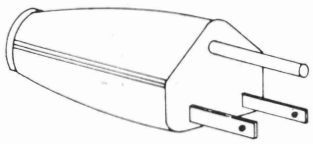
These models operate on 50/60 Hz, single phase, ac lines.

Model LMSW-52 and LMSW-52T

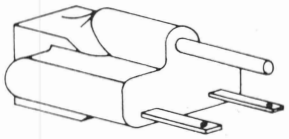
Welds mild and stainless steel up to 3/16" (4.7 mm) combined thickness or two pieces of 16 gauge (3.0 mm) galvanized. Not recommended for aluminum.

These models operate on 50/60 Hz, single phase, ac lines.

All models are equipped with a ten-foot (3 meters), three-conductor cord with plug.

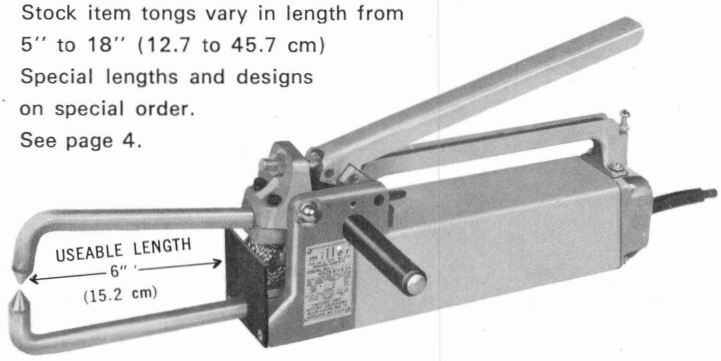


PARALLEL PLUG
Standard on MSW-41 and MSW-41T



TANDEM PLUG
Standard on MSW-42, LMSW-52 MSW-42T and LMSW-52T

Useable tong length is measured from the center of spot tips to the fiberglas protective guard on the front of the welder. Stock item tongs vary in length from 5" to 18" (12.7 to 45.7 cm) Special lengths and designs on special order.
See page 4.



Tongs A Separate Purchase

The above spot welder is illustrated with 6" (15.2 cm) standard tongs. In describing the tongs as "standard", the reference pertains to the model description of the tongs, not that they are standard equipment. Tongs represent a separate purchase. A choice can be made from the selection shown on the chart on page four.

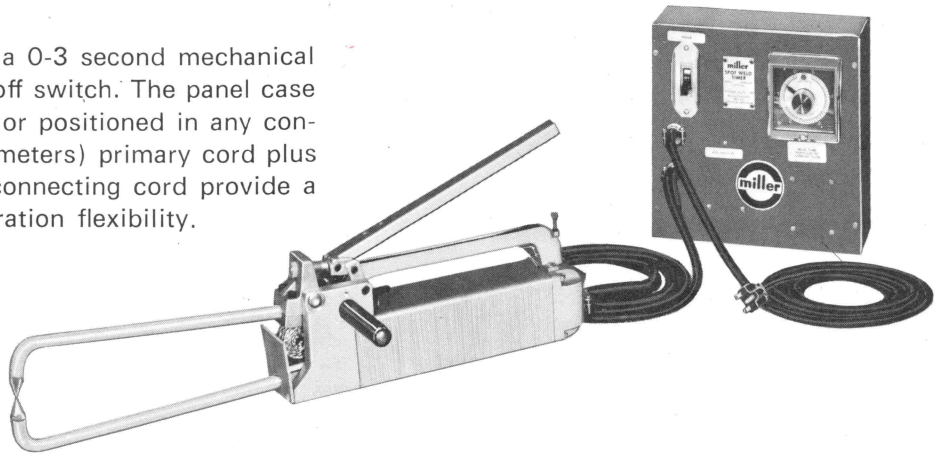
MSW-T SERIES

MSW-T Series with Weld Timer

Weld timers are a reliable way of producing the same size weld nugget every time, thereby assuring high quality and strong metal joining.

Timers also afford a conventional way of resetting for various thicknesses of metals without experimental time or material required.

The panel is equipped with a 0-3 second mechanical weld timer and a power on-off switch. The panel case can be either wall mounted or positioned in any convenient area. A ten foot (3 meters) primary cord plus a ten foot (3 meters) interconnecting cord provide a twenty foot (6 meters) operation flexibility.



METALS:

Mild, or low carbon steels are readily welded with the resistance spot welding process.

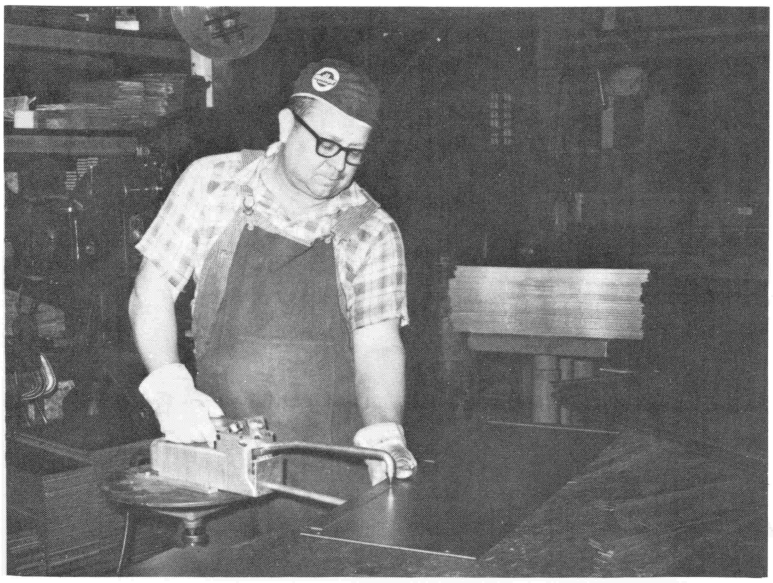
Cold rolled (CRS) and hot rolled, pickled and oiled steels may be spot welded with very little trouble.

Low alloy and medium carbon steels require longer welding time than mild steel to retard the cooling rate and permit more ductile welds.

Stainless steel also requires a slightly longer weld time than mild steel. The rapid quench associated with resistance spot welding is ideal for use with the stainless steels.

Galvanized steel also requires a longer weld time than mild steel. A slightly greater tong pressure is required to force the zinc aside at the weld area thus permitting the base steel to fuse. Zinc oxides formed from galvanized steel will require additional tip dressing.

These models are not recommended for spot welding aluminum.

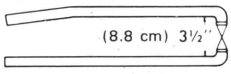
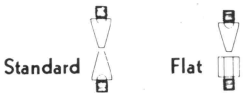
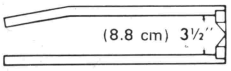
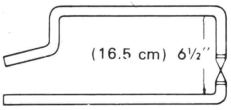
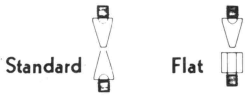
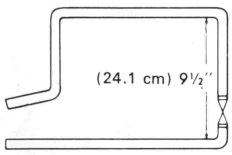
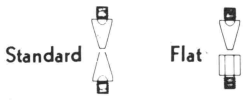
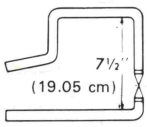
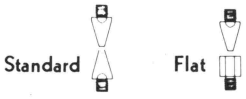
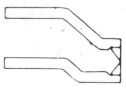


MSW-41 SPOT WELDER in use on 18 gauge (1.2 mm) sheet metal as the door of a metal utility cabinet is being fabricated.

TONGS AND TIPS

Tongs and tips illustrated on this page **must be ordered separately.** Special designs, within certain limitations and not to exceed 18 inches (45.7 cm) in length, can be supplied to order. Maximum welding capabilities are obtained with minimum tong length.

An order for a pair of flat tips consists of one flat tip and one standard tip. Minimum order: 4 sets of tips. One pair of tips furnished with each pair of tongs ordered. Figures below show usable tong lengths in inches and centimeters.

TONGS For use with All MSW and LMSW Spot Welders. Please specify by stock number.		**TIPS** Tips are made of long wearing RWMA class 2 alloy. Contour permits easy "dressing" and adds to the life of the tip. Use stock number.
 (8.8 cm) 3½" STANDARD	6" (15.2 cm) 040 197 12" (30.4 cm) 040 198 18" (45.7 cm) 040 199	 Standard 040 211 Flat 040 212
 (8.8 cm) 3½" MO OFFSET	6" (15.2 cm) 040 200 12" (30.4 cm) 040 201 18" (45.7 cm) 040 202	MO Offset 040 215
 (16.5 cm) 6½" TT-6	12" (30.4 cm) 040 203 18" (45.7 cm) 040 204	 Standard 040 211 Flat 040 212
 (24.1 cm) 9½" TT-9	12" (30.4 cm) 040 205 18" (45.7 cm) 040 206	 Standard 040 211 Flat 040 212
 7½" (19.05 cm) G-7	8" (20.3 cm) 040 207	 Standard 040 211 Flat 040 212
FF	8" (20.3 cm) 040 208	FF 040 213
 FH	5" (12.7 cm) 040 209	FH 040 214

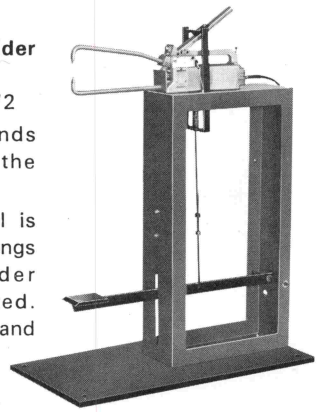
OPTIONAL ACCESSORIES

Gyro Bail Stock No. 040 192 GB-1. Supports the weight of the welder. Operates with boom and counterweight or from spring loaded cable. Reduces operator fatigue. Spot welds in any position.

SWP-2 Spot Welder Pedestal
Stock No. 040 872

Leaves both hands free to handle the work.

When foot control is depressed, the tongs close and welder switch is actuated. Use with MSW and LMSW.



SWT-3 Stock No. 040 195

460-230 volt step-down transformer. Plug on MSW-42 and LMSW-52 fits into receptacle on transformer.

DISTRIBUTED BY

MILLER ELECTRIC MFG. CO., APPLETON, WI 54911

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